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PTO/SB/21 (09-06)

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**TRANSMITTAL
FORM**

(to be used for all correspondence after initial filing)

Total Number of Pages in This Submission

8

Application Number

10/064,601

Filing Date

07/30/2002

First Named Inventor

Hsu-Feng Ho

Art Unit

2627

Examiner Name

AGUSTIN, PETER VINCENT

Attorney Docket Number

MTKP0018USA

ENCLOSURES (Check all that apply)

Fee Transmittal Form



Fee Attached



Amendment/Reply



After Final



Affidavits/declaration(s)



Extension of Time Request



Express Abandonment Request



Information Disclosure Statement



Certified Copy of Priority Document(s)

Reply to Missing Parts/
Incomplete ApplicationReply to Missing Parts
under 37 CFR 1.52 or 1.53

Drawing(s)



Licensing-related Papers



Petition

Petition to Convert to a
Provisional Application

Power of Attorney, Revocation



Change of Correspondence Address



Terminal Disclaimer



Request for Refund



CD, Number of CD(s) _____

☐ Landscape Table on CD

After Allowance Communication to TC

Appeal Communication to Board
of Appeals and InterferencesAppeal Communication to TC
(Appeal Notice, Brief, Reply Brief)

Proprietary Information



Status Letter

Other Enclosure(s) (please identify
below):

1. Copy of the Front Page of Patent
2. Copy of Fee Transmittal submitted on
10/19/2006
3. Copies of the Notice of Recordation dated
09/12/2005

Remarks

Request for Certificate of Correction of Office Mistake

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm Name

North America Intellectual Property Corporation

Signature

Winston Hsu

Printed name

Winston Hsu

Date

JAN 05 2007

Reg. No.

41,526

CERTIFICATE OF TRANSMISSION/MAILING

I hereby certify that this correspondence is being facsimile transmitted to the USPTO or deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date shown below:

Signature

Stephanie Lai

Typed or printed name

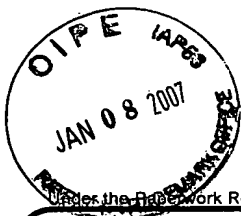
Stephanie Lai

Date

JAN 05 2007

This collection of information is required by 37 CFR 1.5. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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PTO/SB/17 (07-06)
Approved for use through 01/31/2007. OMB 0651-0032
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE
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Effective on 12/08/2004.
Fees pursuant to the Consolidated Appropriations Act, 2005 (H.R. 4818).

FEE TRANSMITTAL

For FY 2005

☐ Applicant claims small entity status. See 37 CFR 1.27

TOTAL AMOUNT OF PAYMENT (\$)**0.00**

Complete if Known

| | |
|----------------------|------------------------|
| Application Number | 10/064,601 |
| Filing Date | 07/30/2002 |
| First Named Inventor | Hsu-Feng Ho |
| Examiner Name | AGUSTIN, PETER VINCENT |
| Art Unit | 2627 |
| Attorney Docket No. | MTKP0018USA |

METHOD OF PAYMENT (check all that apply)

☐ Check ☐ Credit Card ☐ Money Order ☐ None ☐ Other (please identify): _____

☒ Deposit Account Deposit Account Number: **50-3105** Deposit Account Name: North America Intellectual Property Corporation

For the above-identified deposit account, the Director is hereby authorized to: (check all that apply)

☒ Charge fee(s) indicated below ☐ Charge fee(s) indicated below, except for the filing fee
☒ Charge any additional fee(s) or underpayments of fee(s) under 37 CFR 1.16 and 1.17 ☒ Credit any overpayments

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FEE CALCULATION

1. BASIC FILING, SEARCH, AND EXAMINATION FEES

| Application Type | FILING FEES | | SEARCH FEES | | EXAMINATION FEES | | Fees Paid (\$) |
|------------------|-----------------------|----------|-----------------------|----------|-----------------------|----------|----------------|
| | Small Entity Fee (\$) | Fee (\$) | Small Entity Fee (\$) | Fee (\$) | Small Entity Fee (\$) | Fee (\$) | |
| Utility | 300 | 150 | 500 | 250 | 200 | 100 | |
| Design | 200 | 100 | 100 | 50 | 130 | 65 | |
| Plant | 200 | 100 | 300 | 150 | 160 | 80 | |
| Reissue | 300 | 150 | 500 | 250 | 600 | 300 | |
| Provisional | 200 | 100 | 0 | 0 | 0 | 0 | |

2. EXCESS CLAIM FEES

| Fee Description | Fee (\$) | Small Entity Fee (\$) |
|--|---------------------|-----------------------|
| Each claim over 20 (including Reissues) | 50 | 25 |
| Each independent claim over 3 (including Reissues) | 200 | 100 |
| Multiple dependent claims | 360 | 180 |
| Total Claims | Extra Claims | Fee (\$) |
| - 20 or HP = _____ x _____ = _____ | | |
| HP = highest number of total claims paid for, if greater than 20. | | |
| Indep. Claims | Extra Claims | Fee (\$) |
| - 3 or HP = _____ x _____ = _____ | | |
| HP = highest number of independent claims paid for, if greater than 3. | | |

| Fee (\$) | Small Entity Fee (\$) |
|----------------------------------|-----------------------|
| 50 | 25 |
| 200 | 100 |
| 360 | 180 |
| Multiple Dependent Claims | |
| Fee (\$) | Fee Paid (\$) |

3. APPLICATION SIZE FEE

If the specification and drawings exceed 100 sheets of paper (excluding electronically filed sequence or computer listings under 37 CFR 1.52(e)), the application size fee due is \$250 (\$125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).

Total Sheets - 100 = Extra Sheets / 50 Number of each additional 50 or fraction thereof x Fee (\$) = Fee Paid (\$)

4. OTHER FEE(S)

Non-English Specification, \$130 fee (no small entity discount)

Other (e.g., late filing surcharge): _____

SUBMITTED BY

| | | | | | |
|-------------------|--------------------|-----------------------------------|-------------|-----------|------------|
| Signature | <i>Winston Hsu</i> | Registration No. (Attorney/Agent) | 41,526 | Telephone | 3027291562 |
| Name (Print/Type) | Winston Hsu | Date | JAN 05 2007 | | |

This collection of information is required by 37 CFR 1.136. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 30 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Inventor : Hsu-Feng Ho
Examiner: AGUSTIN, PETER VINCENT
Art Unit: 2627
Patent No. : US 7,145,855 B2 Issue Date : Dec. 5, 2006
Docket No. : MTKP0018USA

Title: METHOD OF CONTROLLING AN OPTICAL DISK DRIVE BY
CALCULATING A TARGET FREQUENCY OF A DPLL SIGNAL

To: Commissioner for Patents
P.O. BOX 1450
Alexandria, VA 22313-1450

Subject: Request for Certificate of Correction of Office Mistake

The name of the assignee listed on the front page of the Patent is incorrect (Attachment 1). Documents on record indicate this as an Office mistake of consequence.

The applicant hereby requests that a Certificate of Correction be issued under 37 CFR 1.322 to correct the name of the assignee from **Media Tek Inc.** to **MediaTek Inc.** which was correctly listed on the Fee Transmittal submitted on 10/19/2006 (Attachment 2) and the Notice of Recordation dated 09/12/2005 (Attachment 3).

Respectfully submitted,

Winston Hsu

Date: JAN 05 2007

Winston Hsu, Patent Agent No. 41,526

P.O. BOX 506, Merrifield, VA 22116, U.S.A.

Voice Mail: 302-729-1562

Facsimile: 806-498-6673

e-mail : winstonhsu@naipo.com

(Note: Please leave a message in my voice mail if you need to talk to me. The time in D.C. is 13 hours behind the Taiwan time, i.e. 9 AM in D.C. = 10 PM in Taiwan).



US007145855B2

(12) **United States Patent**
Ho

(10) **Patent No.:** **US 7,145,855 B2**
(45) **Date of Patent:** **Dec. 5, 2006**

(54) **METHOD OF CONTROLLING AN OPTICAL DISK DRIVE BY CALCULATING A TARGET FREQUENCY OF A DPLL SIGNAL**

6,285,640 B1 * 9/2001 Hayashi et al. 369/47.29

FOREIGN PATENT DOCUMENTS

JP 2000-163890 6/2000
TW 494400 7/2002

OTHER PUBLICATIONS

Transition of TW 494400.*

* cited by examiner

Primary Examiner—Brian E. Miller
Assistant Examiner—Peter Vincent Agustin
(74) *Attorney, Agent, or Firm*—Winston Hsu

(57) **ABSTRACT**

A control circuit for an optical disk drive includes a frequency detector, a phase detector, a low pass filter, a voltage-controlled oscillator (VCO), and a controller. The frequency detector and the phase detector both receive an eight-to-fourteen modulation (EFM) signal and a data phase-locked loop (DPLL) signal. The controller can calculate a target frequency and control the VCO to output the DPLL signal according to the target frequency. During a non-seek mode, the VCO outputs the DPLL signal according to output of the frequency detector, phase detector, and low pass filter. During a seek mode or when spindle speed of the optical disk drive changes, the VCO outputs the DPLL signal according to the target frequency. The controller further outputs charge pump currents for the frequency detector and the phase detector and sets an RF equalizer signal and a differential phase detector (DPD) equalizer signal according to the target frequency.

7 Claims, 3 Drawing Sheets

Please correct
the name of
the assignee
from "Media Tek Inc."
to "MediaTek Inc."

(75) **Inventor:** **Hsu-Feng Ho, Taipei (TW)**

(73) **Assignee:** **Media Tek Inc., Hsin-Chu (TW)**

(*) **Notice:** Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 485 days.

(21) **Appl. No.:** **10/064,601**

(22) **Filed:** **Jul. 30, 2002**

(65) **Prior Publication Data**

US 2004/0022143 A1 Feb. 5, 2004

(51) **Int. Cl.**
G11B 7/00 (2006.01)

(52) **U.S. Cl.** **369/53.34; 369/47.28**

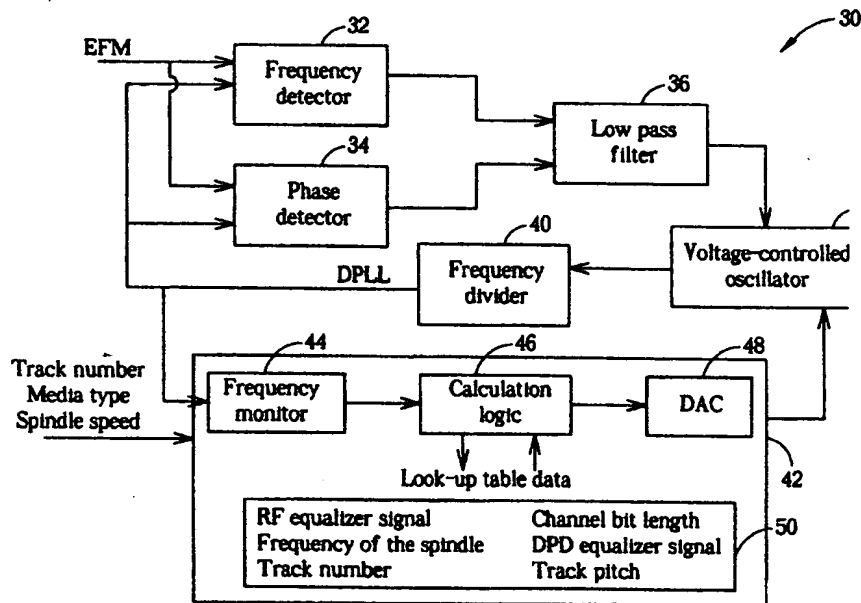
(58) **Field of Classification Search** **369/47.11, 369/47.15, 47.16, 47.28, 53.34, 47.3, 47.25, 369/59.15**

See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

4,618,897 A * 10/1986 Johnson et al. 360/73.02
5,636,192 A * 6/1997 Shimizume et al. 369/47.28
5,745,455 A * 4/1998 Takeda et al. 360/77.04
5,920,214 A 7/1999 Lee et al.
6,088,311 A * 7/2000 Katoh 369/53.34





Attachment >

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: **Mail** Mail Stop ISSUE FEE
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450
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CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

027765 7590 09/12/2006

NORTH AMERICA INTELLECTUAL PROPERTY
CORPORATION
P.O. BOX 506
MERRIFIELD, VA 22116

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Certificate of Mailing or Transmission

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| | |
|----------------------|--------------------|
| Stephanie Lai | (Depositor's name) |
| <i>Stephanie Lai</i> | (Signature) |
| 10/19/2006 | (Date) |

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
|-----------------|-------------|----------------------|---------------------|------------------|

10/064,601

07/30/2002

Hsu-Feng Ho

MTKP0018USA

5133

TITLE OF INVENTION: METHOD OF CONTROLLING AN OPTICAL DISK DRIVE BY CALCULATING A TARGET FREQUENCY OF A DP LL SIGNAL

| APPLN. TYPE | SMALL ENTITY | ISSUE FEE DUE | PUBLICATION FEE DUE | PREV. PAID ISSUE FEE | TOTAL FEE(S) DUE | DATE DUE |
|-------------|--------------|---------------|---------------------|----------------------|------------------|----------|
|-------------|--------------|---------------|---------------------|----------------------|------------------|----------|

nonprovisional

NO

\$1400

\$300

\$0

\$1700

12/12/2006

| EXAMINER | ART UNIT | CLASS-SUBCLASS |
|----------|----------|----------------|
|----------|----------|----------------|

AGUSTIN, PETER VINCENT

2627

369-047300

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. Use of a Customer Number is required.

2. For printing on the patent front page, list

(1) the names of up to 3 registered patent attorneys or agents OR, alternatively,

(2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.

1. Winston Hsu

2. _____

3. _____

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE

MediaTek Inc.

(B) RESIDENCE: (CITY AND STATE OR COUNTRY)

1F, No. 13, Innovation Road 1, Science-Based Industrial Park, Hsin-Chu City, Taiwan, R.O.C.

Please check the appropriate assignee category or categories (will not be printed on the patent): ☐ Individual ☒ Corporation or other private group entity ☐ Government

4a. The following fee(s) are submitted:

☒ Issue Fee☒ Publication Fee (No small entity discount permitted)☐ Advance Order - # of Copies _____

4b. Payment of Fee(s): (Please first reapply any previously paid issue fee shown above)

☐ A check is enclosed.☐ Payment by credit card. Form PTO-2038 is attached.☒ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number 50-3105 (enclose an extra copy of this form).

5. Change in Entity Status (from status indicated above)

☐ a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27.☐ b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).

NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

Authorized Signature

Winston Hsu

Date

10/19/2006

Typed or printed name

Winston Hsu

Registration No.

41,526

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SEPTEMBER 12, 2005

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800020787A***800020787A***

UNITED STATES PATENT AND TRADEMARK OFFICE
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PLEASE REVIEW ALL INFORMATION CONTAINED ON THIS NOTICE. THE INFORMATION CONTAINED ON THIS RECORDATION NOTICE REFLECTS THE DATA PRESENT IN THE PATENT AND TRADEMARK ASSIGNMENT SYSTEM. IF YOU SHOULD FIND ANY ERRORS OR HAVE QUESTIONS CONCERNING THIS NOTICE, YOU MAY CONTACT THE EMPLOYEE WHOSE NAME APPEARS ON THIS NOTICE AT 571-272-3350. PLEASE SEND REQUEST FOR CORRECTION TO: U.S. PATENT AND TRADEMARK OFFICE, MAIL STOP: ASSIGNMENT SERVICES DIVISION, P.O. BOX 1450, ALEXANDRIA, VA 22313.

RECORDATION DATE: 09/09/2005

REEL/FRAME: 016520/0905
NUMBER OF PAGES: 2

BRIEF: ASSIGNMENT OF ASSIGNOR'S INTEREST (SEE DOCUMENT FOR DETAILS).
DOCKET NUMBER: MTKP0018USA1

ASSIGNOR:

HO, HSU-FENG

DOC DATE: 07/29/2002

ASSIGNEE:

MEDIATEK INC.

5F, NO. 1-2, INNOVATION ROAD 1,
SCIENCE-BASED INDUSTRIAL PARK
HSIN-CHU HSIEN, TAIWAN

SERIAL NUMBER: 11162406

FILING DATE:

PATENT NUMBER:

ISSUE DATE:

TITLE: APPARATUS FOR CONTROLLING AN OPTICAL DISK DRIVE BY CALCULATING A
TARGET FREQUENCY OF A DPLL SIGNAL

016520/0905 PAGE 2

SHARON LATIMER, EXAMINER
ASSIGNMENT DIVISION
OFFICE OF PUBLIC RECORDS